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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/786,965	02/25/2004	Dan Aharoni	EMC-02-132CIP1	4123

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EXAMINER

PATEL, SHAMBHAVI K

ART UNIT	PAPER NUMBER
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2128

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/06/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/786,965

Applicant(s)

AHARONI ET AL.

Examiner

Shambhavi Patel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is in reply to the Arguments/Remarks' submitted 20 December 2006.
2. Claims 1-21 are pending.

Response to Arguments

3. Applicant's arguments filed 20 December 2006 have been fully considered but they are not persuasive.

Regarding the 35 U.S.C. 101 rejection:

- i. The 101 rejection in the previous Office Action is moot in view of the amendments. However, the amendments due to meet the requirements under 35 U.S.C. 101 and have been rejected accordingly. Please see below.

Regarding the 35 U.S.C. 102 rejection:

- ii. The Applicant submits that Hoffecker does not disclose all of the limitations of amended claims 1, 8 and 15. The Examiner maintains that the Hoffecker reference teaches all of the limitations of claims 1-21. Please see below.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. **Claims 1-21 are rejected under 35 U.S.C. 101** because the claimed invention is directed to non-statutory subject matter. The Examiner asserts that the current state of the claim language is such that a reasonable interpretation of the claims would not result in any useful, concrete or tangible product.

Claims 1, 8, and 15 are directed to simulating performance on one or more data storage systems. This

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claimed subject matter lacks a practical application of a judicial exception (law of nature, abstract idea, naturally occurring article/phenomenon) since it fails to produce a useful, concrete and tangible result. Specifically, the claimed subject matter does not produce a tangible result because the claimed subject matter fails to produce a result that is limited to having real world value rather than a result that may be interpreted to be abstract in nature as, for example, a thought, a computation, or manipulated data. More specifically, the claimed subject matter provides for proposing a configuration of said one or more data systems that would sustain the simulated performance at a given level. This produced result remains in the abstract and, thus, fails to achieve the required status of having real world value

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. **Claims 1-21 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Hoffecker (US Patent No. 5,325,505).**

Regarding claims 1, 8, and 15:

Hoffecker discloses simulating performance on one or more data storage systems by:

- a. receiving utilization data related to the utilization of one or more data storage systems (column 7 lines 11-13). The input/output activity of the data storage subsystem is measured over time to calculate the number of input and output operations (*utilization data*) to the dataset.

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- b. receiving performance characteristics of work performed on the one or more data storage systems (**column 3 lines 25-29**). The prior art discloses using data from monitoring of the actual *performance of the data storage system* to dynamically analyze the performance of the data storage system.
- c. simulating performance on the one or more data storage systems using the utilization data and performance characteristics (**column 24 lines 36-42**) and that of a system including one or more data storage systems (**column 2 lines 44-46**)
- d. determining whether said performance of the one or more data storage systems or the system including said one or more data storage systems exceeds a corresponding level of performance (**column 3 lines 30-35**)
- e. indicating which of said one or more data storage systems are causing the excessive level of performance (**column 2 lines 35-38**)
- f. proposing a configuration of said one or more data storage systems that would sustain the simulated performance at a given level (**column 3 lines 38-48**).

Regarding **claim 8**, Hoffecker further discloses a system for performing the above, the system comprising:

- i. a computer having a memory and a display (**figure 1 computer 170**)
- ii. computer executable program code operating in memory (**figure 1**), wherein the computer-executable code is configured for execution of the above steps (**column 3 lines 10-16**)

Regarding **claim 15**, Hoffecker further discloses a program product including a computer readable medium with computer executable code configured for causing steps (a)-(c) above to occur (**column 3 lines 10-16**).

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Regarding claims 2, 9, and 16:

Hoffecker discloses performing a storage management function (column 7 lines 28-32).

Regarding claims 3, 10, and 17:

Hoffecker discloses performing a performance modeling function (column 8 lines 22-23, 42-55).

Regarding claims 4, 11, and 18:

Hoffecker discloses performing a storage capacity planning function (column 28 lines 41-45).

Regarding claims 5, 12, and 19:

Hoffecker discloses performing the consolidation of one or more data storage systems that may be denominated as one or more source data storage systems into one other data system that may be denominated as a target data storage system (column 9 lines 37-43).

Regarding claims 6, 13, and 20:

Hoffecker discloses load balancing the source or target data system in accordance with information yielded from the step of simulating performance on the one or more data storage systems (column 2 lines 36-43; column 3 lines 38-48).

Regarding claims 7, 14, and 21:

Hoffecker discloses partially optimizing the source or target data system in accordance with information yielded from the step of simulating performance on the one or more data storage systems (column 8 lines 42-48).

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Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

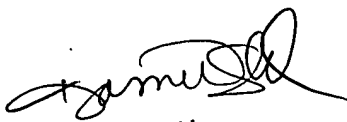
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shambhavi Patel whose telephone number is (571) 272-5877. The examiner can normally be reached on Monday-Friday, 8:00 am – 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamini Shah can be reached on (571)272-2279. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SKP

Shambhavi Patel
Examiner
Art Unit 2128


KAMINI SHAH
SUPERVISORY PATENT EXAMINER